

# 10. Conclusion







For most Australians, earnings play a critical role in being able to make ends meet and to live a healthy lifestyle. When one experiences an earnings shock, be it voluntary (e.g., changing careers) or involuntary (e.g., a plant closure), the risk of becoming vulnerable to entering a state of economic disadvantage increases. This report illustrates that while the depth of earnings shocks has fallen over the past 30 years, during periods of booms, busts and ‘dog days’, males and females alike suffer from earnings shocks. In more recent years (e.g., 2017, pre-pandemic) the rate of shocks saw 10 percent of wage-earning tax filers experience shocks in any given year; rates were higher during periods of economic turmoil such as during the GFC in 2010.

Admittedly a significant earnings shock (a drop in earnings that exceeds 40 percent) can be voluntary; these rates exceed reported unemployment rates in most years. We document that earnings shocks will vary based on pre-shock earnings, with those at the bottom distribution much more (e.g., three times) likely to experience an earnings shock than those at the top end of the distribution. We also document higher rates of earnings shocks for individuals under 35. Across most metrics, moreover, females experience higher rates of earnings shocks, although a portion of these shocks may be attributable to a reduction in hours and/or exiting from the work force after having children.

The analysis in this report also documents that the likelihood of a rapid recovery from an earnings shock is very low. In many cases, of those who experience an earnings shock, far fewer than half have returned to their pre-shock earnings within three years. Recovery rates, however, are better for younger Australians and those with low incomes. Uniformly, however, recovery rates are stronger for males than for females.

This report also touches on a few characteristics that are correlated with earnings shocks and recoveries. Those with higher educational attainment are observed with lower rates of earnings shocks and faster recoveries. Those with a temporary or permanent disability are observed with higher rates of earnings shocks and slower recoveries.

This report illustrates that understanding the dynamics of earnings apart from income poverty rates and unemployment rates will help us to better understand how best to insure against the risk of moving into a state of economic disadvantage and to address the potential vulnerabilities that are associated with states of increased risk of poverty or disadvantage.

This report also illustrates the value of using large longitudinal datasets such as the tax-filer dataset known as ALife to explore issues that relate to the economic wellbeing of individuals and households.



# References



Adams-Prassl, A., Boneva, T., Golin, M. and Rauh, C. (2020) 'Inequality in the impact of the coronavirus shock: Evidence from real time surveys', *Journal of Public Economics*, vol. 189, pp. 204–45.

Ananyev, M., Payne, A.A., Wilkins, R. and Zilio, F. (2023) 'Individual earnings changes and the business cycle: An analysis of Australian longitudinal tax data'.

Blundell, R., Graber, M. and Mogstad, M. (2015) 'Labor income dynamics and the insurance from taxes, transfers, and the family', *Journal of Public Economics*, vol. 127, pp. 58–73.

Bollinger, C.R., Hirsch, B.T., Hokayem, C.M. and Ziliak, J.P. (2019) 'Trouble in the tails? What we know about earnings nonresponse 30 years after Lillard, Smith, and Welch', *Journal of Political Economy*, vol. 127, no. 5, pp. 2143–85.

Brewer, M. and Tasseva, I.V. (2021) 'Did the UK policy response to Covid-19 protect household incomes?', *The Journal of Economic Inequality*, vol. 19, no. 3, pp. 433–58

Cai, L. and Kalb, G. (2006) 'Health status and labour force participation: Evidence from Australia', *Health Economics*, vol. 15, no. 3, pp. 241–61.

Cassidy, N., Chan, I., Gao, A. and Penrose, G. (2020) *Long-term Unemployment in Australia*. Reserve Bank of Australia, Canberra, <<https://www.rba.gov.au/publications/bulletin/2020/dec/long-term-unemployment-in-australia.html>>, accessed 22 June 2023.

Chaudhuri, S. (2003) *Assessing Vulnerability to Poverty: Concepts, Empirical Methods and Illustrative Examples*. Department of Economics, Columbia University, New York.

Choi, S., Janiak, A. and Villena-Roldán, B. (2015) 'Unemployment, participation and worker flows over the life-cycle', *The Economic Journal*, vol. 125, no. 589, pp. 1705–33.

Crossley, T.F., Fisher, P. and Low, H. (2021) 'The heterogeneous and regressive consequences of COVID-19: Evidence from high quality panel data', *Journal of Public Economics*, vol. 193.

- Dutta, I., Foster, J. and Mishra, A. (2011) 'On measuring vulnerability to poverty', *Social Choice and Welfare*, vol. 37, no. 4, p. 743.
- Garnaut, R. (2021) *Reset: Restoring Australia After the Pandemic Recession*, LaTrobe University and Black Inc., Melbourne.
- Guvenen, F., Karahan, F., Ozkan, S. and Song, J. (2017) 'Heterogeneous scarring effects of full-year nonemployment', *American Economic Review*, vol. 107, no. 5, pp. 369–73.
- Guvenen, F., Ozkan, S. and Song, J. (2014) 'The nature of countercyclical income risk', *Journal of Political Economy*, vol. 122, no. 3, pp. 621–60.
- Hoynes, H., Miller, D.L. and Schaller, J. (2012) 'Who suffers during recessions?', *Journal of Economic Perspectives*, vol. 26, no. 3, pp. 27–48.
- Inchauste, G., Azevedo, J.P., Olivieri, S., Saavedra, J. and Winkler, H. (2012) 'When job earnings are behind poverty reduction', World Bank: Economic Premise, no. 97.
- Meyer, B.D., Mok, W.K. and Sullivan, J.X. (2015) 'Household surveys in crisis', *Journal of Economic Perspectives*, vol. 29, no. 4, pp. 199–226.
- Payne, A.A. and Samarage, R. (2020) *Spatial and Community Dimensions of Income Poverty*, <[https://melbourneinstitute.unimelb.edu.au/data/assets/pdf\\_file/0003/3533205/Breaking-Down-Barriers-Report-2-November-2020.pdf](https://melbourneinstitute.unimelb.edu.au/data/assets/pdf_file/0003/3533205/Breaking-Down-Barriers-Report-2-November-2020.pdf)>, accessed 22 June 2023.
- Polidano, C. and Vu, H. (2015) 'Differential labour market impacts from disability onset', *Health Economics*, vol. 24, no. 3, pp. 302–17.
- Polidano, C., Carter, A., Chan, M., Chigavazira, A., To, H., Holland, J., Nguen, S., Vu, H. and Wilkins, R. (2020) 'The ATO Longitudinal Information Files (ALife): A new resource for retirement policy research', *Australian Economic Review*, vol. 53, no. 3, pp. 429–49.
- Productivity Commission (2009) *Paid Parental Leave: Support for Parents with Newborn Children*, Productivity Commission Research Report no. 47, Productivity Commission, Canberra.
- Pruitt, S. and Turner, N. (2020) 'Earnings risk in the household: Evidence from millions of US tax returns', *American Economic Review: Insights*, vol. 2, no. 2, pp. 237–54.
- Psacharopoulos, G. and Patrinos, H.A. (2018) 'Returns to investment in education: A decennial review of the global literature', *Education Economics*, vol. 26, no. 5, pp. 445–58.
- Stephens Jr, M. (2001) 'The long-run consumption effects of earnings shocks', *The Review of Economics and Statistics*, vol. 83, no. 1, pp. 28–36.
- Vera-Toscano, E. and Wilkins, R. (2022) *The dynamics of income poverty in Australia*, <[https://melbourneinstitute.unimelb.edu.au/data/assets/pdf\\_file/0011/4107629/Breaking-Down-Barriers-Report-4-May-2022.pdf](https://melbourneinstitute.unimelb.edu.au/data/assets/pdf_file/0011/4107629/Breaking-Down-Barriers-Report-4-May-2022.pdf)>, accessed 22 June 2023.
- Von Wachter, T., Song, J. and Manchester, J. (2009) *Long-term Earnings Losses Due to Mass Layoffs During the 1982 Recession: An Analysis Using US Administrative Data From 1974 to 2004*, Mimeo, Columbia University.
- Wilkins, R.K. (2003) *Labour Market Outcomes and Welfare Dependence of Persons with Disabilities in Australia*, Melbourne Institute Working Paper No. 2/03, Melbourne.





# About the Authors

## Professor A. Abigail Payne

Professor A. Abigail Payne has been the Director and Ronald Henderson Professor at the Melbourne Institute: Applied Economic & Social Research since 2016. A driving force behind Professor Payne's work is the use of data and statistics to inform economic policy, especially in the area of public economics. Her research covers (a) the effects of policy on educational outcomes, transitions in schooling, gender differences in educational attainment, and student performance, (b) understanding donor and charity behaviour, and (c) exploring the determinants of poverty and disadvantage in Australia and identifying mechanisms and effective policies for reducing poverty. Her research has been published in top economic and public policy journals. In 2022, she was a Visiting Fellow at Hoover Institution (Stanford University, USA).

Prior to moving to Melbourne, Professor Payne was a professor of economics at McMaster University (Canada) where she was the inaugural director of MacDATA, McMaster's Big Data Institute, and the creator and director of the Public Economics Data Analysis Laboratory ("PEDAL") a secure data facility to address key public sector issues. She also has held positions at the University of Illinois and the University of Toronto, and she practised law for five years at a private law firm in Washington, DC. Previously Professor Payne was a Tier II Canada Research Chair in Public Economics, and she received a National Academy of Education/Spencer Foundation Post-Doctoral Fellowship for her research on higher education issues. Professor Payne received her PhD from Princeton University. She holds a JD from Cornell University and a B.A. with honours from Denison University.

Professor Payne has been a driver behind the building of the Melbourne Institute Data Lab and the creation of shared data environments. She serves on many committees in Australia and internationally. This includes serving as a member of the Australian Statistics Advisory Council, chair of the ifo Institute's Scientific Advisory Council, co-editor of Economic Inquiry, member of the Asian and Australasian Society of Labour Economics Board, panel member of the Department of Treasury's Macroeconomic Group Economic Advisory Panel, member of the Go8

Economics Experts Panel, and board member of Brotherhood of St Laurence and University of Melbourne Partnership Board. During the pandemic she also served on ad-hoc committees for the City of Melbourne Economic Strategy and the Department of Premier and Cabinet (Victoria) Vulnerable Indices.

Professor Payne's projects include being the project lead for the Paul Ramsay Foundation Breaking Down Barriers Shared Data Environment, being a chief investigator for the ARC-COE Life Course Centre, developer of a partnership with Roy Morgan Research, part of a team that leads the development of the Taking the Pulse of the Nation survey, and an investigator on projects funded by the Austral Data Research Commons. She also has projects through the Lord Mayor's Charitable Foundation, the Victorian Department of Premier and Cabinet and the Victorian Department of Education.

## Professor Roger Wilkins

Roger Wilkins is Deputy Director of the Melbourne Institute as well as being Deputy Director (Research) of the HILDA Survey program area.

His research interests include the nature, causes and consequences of labour market outcomes; the distribution and dynamics of individuals' economic wellbeing; and the incidence and determinants of poverty, social exclusion and welfare dependence.

As part of his work in the HILDA Survey program, Roger produces the annual HILDA Survey Statistical Report, which each year analyses the latest release of the HILDA data.

He has also produced the Australian income component of the World Wealth and Income Database (WID) since 2014.

Roger is a member of the Australian Bureau of Statistics' Labour Statistics Advisory Group, the Australian Housing and Urban Research Institute Research Panel, and the Department of Social Services 'Building a New Life in Australia' Survey Technical Reference Group and is a Policy Adviser for the Australian Council of Social Service. He is also a Research Fellow at the IZA Institute of Labor Economics.

### **Dr Maxim Ananyev**

Dr Maxim Ananyev is a Research Fellow at the Melbourne Institute: Applied Economics & Social Research. He holds a PhD in Political Science from University of California, Los Angeles. He applies methods of computational social science to the issues of economic deprivation, discrimination, social capital, and political economy. His research has been published in peer-reviewed outlets and presented at various professional conferences in the disciplines of Economics, Political Science, Demography, and Computer Science. At the Melbourne Institute, Dr Ananyev works on several projects that use administrative data, such as Census records, tax records, health-related records to measure inequality, poverty and impact of policy changes on life of Australians.

He currently works on an ARC research grant that investigates non-standard forms of employment and fertility. He also works on a project funded by the Faculty of Business and Economics, University of Melbourne that studies the economic consequences of climate disasters.

### **Dr Federico Zilio**

Federico Zilio is a Research Fellow at the Melbourne Institute, University of Melbourne. He received his PhD degree from the Institute of Social and Economic Research, University of Essex (UK). Prior to joining the Melbourne Institute, he undertook a Postdoctoral fellowship at the Faculty of Economics, University of Cambridge (UK).

Dr Zilio's research interests lie in the area of applied microeconomics including earnings and income inequalities, minimum wage effects on employment, consumption and income insurance from risky events such as unemployment or ill-health. Dr Zilio has extensive experience using surveys and administrative data to study income and earnings dynamics, consumption, labour market and health outcomes. He also uses econometric techniques to evaluate the effects of policies such as the minimum wage and cash transfers.

Dr Zilio has contributed to a report for the Fair Work Commission on low-paid workers in Australia and a report for the Australian Defence Force on the socio-economics characteristics of the female population. He has also produced reports on the impact of COVID-19 and inflation on Australians' consumption behaviour.